CLAIMS:

1. A composition consisting essentially of a mixture of linear or branched oligopeptides composed of one or more amino acids having a pK > 7.2, said oligopeptides being polydisperse with respect to molecular weight and to number of branches per molecule.

2. The composition of claim 1 wherein the amino acids are selected from the group consisting of arginine, lysine and histidine.

3. The composition of claim 1 wherein said oligopeptides are polydisperse with an R_f value of 0.4 or greater as measured by thin layer chromatography on silica gel using a system of CH_3Cl_3:CH_3OH:NH_3/40:40:20 in 45% NH_3 solution.

4. The composition of claim 1 wherein said oligopeptides are polydisperse with an R_f value of 0.6 or greater as measured by thin layer chromatography on silica gel using a system of CH_3Cl_3:CH_3OH:NH_3/40:40:20 in 45% NH_3 solution.

5. The composition of claims 1, 2, 3 or 4 wherein the amino acid is arginine.

6. An endotoxin removal adsorbent comprising a ligand immobilized on a solid phase support medium, the ligand consisting essentially of a mixture of linear or branched oligopeptides composed of one or more amino acids having a pK > 7.2, said oligopeptides being polydisperse with respect to molecular weight and to number of branches per molecule.

7. The adsorbent of claim 6 wherein the solid phase support medium is porous sufficient to allow passage of blood cells therethrough.

8. The adsorbent of claim 6 wherein the solid phase support medium is in the form of beads.

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4. The composition of claim 1 wherein said oligopeptides are polydisperse with an R_f value of 0.6 or greater as measured by thin layer chromatography on silica gel using a system of CH_3Cl_3:CH_3OH:NH_3/40:40:20 in 45% NH_3 solution.

5. The composition of claims 1, 2, 3 or 4 wherein the amino acid is arginine.

6. An endotoxin removal adsorbent comprising a ligand immobilized on a solid phase support medium, the ligand consisting essentially of a mixture of linear or branched oligopeptides composed of one or more amino acids having a pK > 7.2, said oligopeptides being polydisperse with respect to molecular weight and to number of branches per molecule.

7. The adsorbent of claim 6 wherein the solid phase support medium is porous sufficient to allow passage of blood cells therethrough.

8. The adsorbent of claim 6 wherein the solid phase support medium is in the form of beads.

9. The adsorbent of claim 6 wherein the ligand is covalently bound to the solid phase support medium.

10. The adsorbent of claims 6, 8 or 9 wherein the amino acid is selected from the group consisting of arginine, lysine and histidine.

11. The adsorbent of claims 8 or 9 wherein said oligopeptides are polydisperse with an R_f value of 0.4 or greater as measured by thin layer chromatography on silica gel using a system of CH_3Cl_3:CH_3OH:NH_3/40:40:20 in 45% NH_3 solution.

12. The adsorbent of claims 8 or 9 wherein said oligopeptides are polydisperse with an R_f value of 0.6 or greater as measured by thin layer chromatography on silica gel using a system of CH_3Cl_3:CH_3OH:NH_3/40:40:20 in 45% NH_3 solution.

13. The adsorbent of claims 8, 9, 11 or 12 wherein the amino acid is arginine.

14. A device for extracorporeal removal of endotoxin from whole blood comprising a container containing and retaining an endotoxin removal adsorbent comprising a ligand immobilized on a solid phase support medium, the ligand consisting essentially of a mixture of linear or branched oligopeptides composed of one or more amino acids having a pK $>$ 7.2, said oligopeptides being polydisperse with respect to molecular weight and to number of branches per molecule, said solid phase support medium being porous sufficient to allow passage of blood cells therethrough, said container having an inlet and an outlet positioned with respect to the adsorbent such that blood entering the inlet contacts the adsorbent before exiting the container through the outlet.

15. The device of claim 14 wherein the solid phase support medium is in the form of beads.

16. The device of claim 15 wherein the ligand is covalently bound to the beads, and the amino acid is selected from the group consisting of arginine, lysine and histidine.

17. The device of claim 14 wherein said oligopeptides are polydisperse with an R_f value of 0.4 or greater as measured by thin layer chromatography on silica gel using a system of CH_3Cl_3:CH_3OH:NH_3/40:40:20 in 45% NH_3 solution.

18. The device of claim 14 wherein said oligopeptides are polydisperse with an R_f value of 0.6 or greater as measured by thin layer chromatography on silica gel using a system of CH_3Cl_3:CH_3OH:NH_3/40:40:20 in 45% NH_3 solution.

19. The device of claims 16, 17 or 18 wherein the amino acid is arginine.

20. A method for removing endotoxin from blood of an animal or human subject comprising removing a portion of blood from the subject, contacting the blood with an adsorbent comprising a ligand immobilized on a solid phase support medium, the ligand consisting essentially of a mixture of linear or branched oligopeptides composed of one or more amino acids having a pK > 7.2, said oligopeptides being polydisperse with respect to molecular weight and to number of branches per molecule, whereby endotoxin is removed from the blood by adsorption to said adsorbent, then returning the blood to the subject.

21. The method of claim 20 wherein the steps of removing, contacting and returning blood are carried out in a continuous flow from and to the subject.

22. The method of claims 20 or 21 wherein the amino acid is selected from the group consisting of arginine, lysine and histidine.

23. The method of claim 22 wherein the amino acid is arginine.

24. A process for making an endotoxin-binding ligand, comprising

reacting an amino acid selected from the group consisting of arginine, lysine and histidine with a coupling reagent at a pH selected to provide that a portion of basic

groups of the amino acids are unprotonated, whereby a polydisperse, branched oligopeptide mixture is formed.

25. The process of claim 24 wherein the amino acid is arginine, the reaction pH is 12 and the coupling reagent is 1-ethyl-3-(3-dimethylaminopropyl)-carbodiimide.

26. An endotoxin-binding ligand made according to the method of claims 24 or 25.